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THE EXAMINATION OF THE SICK: BY INSPECTION, ORAL QUESTIONS, PALPATION OR TOUCH, INSTRUMENTAL AID; THE PRINCIPLES OF DIAGNOSIS; THERAPEUTIC METHODS, ETC.

A LECTURE IN THE REGULAR COURSE ON PRACTICAL MEDICINE, IN CHICAGO MEDICAL COLLEGE, BY N. S. DAVIS, M.D.

ONE of the most delicate and important duties of the physician is to examine his patient. The object of such examination is, to ascertain the location, extent, nature, stage of progress, and coincident derangements, of whatever disease or diseases may afflict the patient; together with the causes that may have been efficient either in producing it or perpetuating its existence. To accomplish this object fully, requires on the part of the practitioner, patience, kindness, gentleness of manipulation; close, undivided attention; the mental discipline that gives quickness of perception, and accuracy of comparison and induction; with that easy boldness which quietly assumes nothing to be immodest that is necessary for a full understanding of the nature and extent of the disease, and yet which sacredly avoids all not thus necessary. To place the patient at ease, and at the same time secure attention, it is best to commence the examination with a few leading questions, such as: How long have you been unwell? How did your sickness commence? Do you suffer much pain, and if so, where? Is it sharp, dull, burning, constant or paroxysmal?

Having thus introduced the examination far enough to allow any feeling of trepidation or embarrassment that might have been felt by the patient, to have subsided, and at the same time to have obtained an outline of his

particular suffering, you should, without apparent design, pass directly to a methodical examination, so complete as to elicit a correct knowledge of all the important functions and processes performed in the system. By simple inspection you observe the physiognomy or expression; the hue of the skin; the position or attitude; voluntary and involuntary movements; general contour or relative development of parts; and the particular appearance of the tongue, with such other parts as may be the seat of special complaint. All this, except the two last items, may be accomplished while proceeding with the oral part of the examination.

After the leading introductory questions already suggested, the further prosecution of the oral examination should take such direction as to elicit as full an account of the several important functions as the patient is capable of giving. Perhaps the most natural and easy method is to interrogate consecutively concerning the organs engaged in the work of digestion, assimilation, and nutrition; those engaged in the opposite processes of disintegration and excretion; then those constituting the nervous system, both cerebro-spinal and ganglionic; and, finally, those concerned in reproduction, especially in females past the age of puberty. When the patient is too young or too sick to answer properly the necessary inquiries, the same should be directed to the nurse, or whoever has immediate care of the patient. There are some diseases, like those of a typhoid character, that always blunt, more or less, the sensibilities of the patient, and often render the manifestations of mind so inactive as to cause very imperfect or erroneous answers to be given. In other cases we have just the opposite, namely, such an increase of nervous sensitiveness as to cause the most extravagant expressions and the wildest exaggerations. It is proper and desirable always to have the nurse, or some reliable member of the family, present during the examination of such patients, because they will greatly assist in correcting erroneous statements, and in supplying defects in the patient's memory. And it is a good rule in all delicate cases, and such as involve apparent mental derangement, to have a free confidential interview with the nurse alone, during which you can canvass the statements and condition of the patient, without danger of exciting either his suspicions or his anger. I need not say this should be done entirely out of the sight and hearing of the patient. Nothing so quickly excites the fears or the suspicions of a conscious patient as private conversation or *whispering* in his room. All conversation in the presence of the sick should be in a mild, kindly tone of voice, just loud enough to be easily understood, but wholly free from all abrupt and boisterous qualities. The correctness of the information obtained from patients will depend much on the manner in which questions are asked. If they are too general in their character the patient will often fail to comprehend their full meaning, and give erroneous answers in consequence. For instance, many when asked if their food digests well, answer promptly, yes; and yet when asked more particularly, acknowledge that the food often lies heavy in the stomach after eating, or that they have frequent belching of gases, and some-

times acid eructations. So, too, in regard to excretions. I have seen many patients who when asked "if their bowels were regular?" answered without any hesitation, "Yes, they were all right." But when asked specifically how often they had a fœcal evacuation some said once in three or four days; others three or four times every day; while others said once a day. The better way is to ask directly how often the patient has an evacuation from the bowels, and what is the color and consistence of the evacuation. The same rule is still more necessary in obtaining a knowledge of the renal secretion. Unless their attention has been previously called to the subject, many patients will not be able to give a reliable statement either as to the quantity or quality of the urine, but will answer in general terms that they think it is about natural. Others will say they "make a great deal more" than natural, when they really make it very *often*, but only a little at a time. Patients laboring under low forms of fever and paralytic affections, not unfrequently have either partial or complete paralysis of the muscular coat of the bladder. This is liable to cause, first, retention until a certain degree of distention of the bladder, and then dribbling, so as to keep the clothing wet, or the passage of only a few spoonfuls at a time. In all such cases, in addition to careful inquiries of the nurse, the physician should daily examine the hypogastric region sufficiently to determine whether the bladder is distended or not. I have known a neglect of this latter rule to lead to several serious mistakes. It is only a few weeks since that I was requested to see a young man reported to be very dangerously sick from disease of the brain. On calling at the house I met the attending physician, and after listening to a brief history of the case, entered the sick man's room. The patient was entirely comatose; chin dropped; pupils a little dilated; breathing irregular; skin clammy; pulse frequent and very feeble; and frequent irregular muscular twitchings. The latter, with a strong urinous odor about the bed, caused me to inquire whether the patient had passed his water regularly.

The attending physician answered in the affirmative. Turning to the nurse I asked *when* he passed his water last? Her answer was, "He passes it every little while, and his bed is wet now." "How long has he passed his water in the bed?" I inquired, at the same time passing my hand down over the region of the bladder. "Three days," was her reply. The hand at once detected a great degree of fullness in the hypogastrium, which further examination proved to be owing to the presence of a bladder so much distended that its fundus reached the umbilicus. The introduction of a catheter gave exit to an ordinary chambervesselful of ammoniacal urine. The attending physician, not a little chagrined, excused himself by saying he had not examined the region of the bladder because the nurse had assured him every day that the patient had passed his water freely. In most cases of chronic disease presenting obscure questions in relation to their pathology, and especially if accompanied by serous or dropsical effusions, the physician should directly examine the urine, aided both by chemical tests and the microscope.

Palpation or Touch.—While the acquisition of an easy, systematic, and accurate method of oral examination is of great importance to the physician, it is never sufficient to give him a full and correct knowledge of the condition of his patient, without the aid of direct contact or touch. By the latter we gain a knowledge of the temperature, and other qualities of the skin; the state of the circulation as indicated by the force, frequency, and regularity of the pulse; the fullness and regularity of respiration; the tension or flaccidity of muscles; the existence of hyperæsthesia and anæsthesia; the existence or non-existence of indurations, enlargements, tumors, abscesses, dropsical effusions, etc.; and the physical condition of the parts within the chest and the abdomen.

In young children, and in patients of all ages whose mental perceptions are disordered by disease, direct physical examination, coupled with inspection, constitute our chief means for acquiring a knowledge of the morbid conditions under which they may be laboring.

Instrumental Aid.—To render this part of the examination of patients more complete, various instruments have been constructed, some of which are of great practical value. The ophthalmoscope; otoscope; rhinoscope; laryngoscope; stethoscope; microscope; sphygmograph; thermometer; urinometer; speculums; with test tubes, spirit lamp, and chemical re-agents, constitute the chief instruments which the physician of to-day may bring to his aid in determining the existence, nature, stage of progress, and tendencies of disease.

I do not say that a physician cannot acquire skill, and even superior skill, both in the diagnosis and treatment of disease, without familiarity with the use of many, and perhaps all of these instruments. And yet it must be admitted that each one of them, properly used, is capable of adding both to the extent and accuracy of our knowledge concerning the morbid conditions it is designed to aid in investigating. It is desirable, therefore, that every general practitioner should be familiar with the use of all these instruments; and as far as practicable, keep them constantly within his reach. No detailed descriptions or illustrative drawings can give you an adequate knowledge of the articles themselves, or of their practical application. Such knowledge can be obtained only by direct examination and actual clinical use.

Happily for you as a class, the daily hospital and dispensary clinics which constitute a prominent part of the course of instruction in this institution, will give you ample opportunities for becoming acquainted, individually, with the practical application of every instrument and appliance that may aid in the examination and treatment of the sick. As already intimated, the primary object of all our examinations of the sick is to ascertain whether they are afflicted by disease, and if so, its nature, extent, duration, etc.—in other words, to arrive at as full and complete a diagnosis as possible.

But what constitutes a complete diagnosis?

Certainly not the mere classification or naming of the disease; for a very superficial examination may enable the practitioner to determine that a patient has typhoid fever, pneu-

monia, or rheumatism, and yet leave him with a very imperfect knowledge of the pathological changes that had taken place in the solids and fluids of the body. A full and practical diagnosis in any given case embraces, first, a knowledge of the general nature of the disease; second, the pathological changes that have taken place, which determine the stage of advancement; third, the nature and extent of the complications, if any, that have supervened; and, fourth, the physical and mental condition and habits of the patient prior to the present sickness. The first of these items gained will enable you to name the disease; the second and third, to clearly comprehend the present pathological condition of the patient, and found thereon rational indications for treatment; while the fourth will often enable you to anticipate the tendency or direction which other changes will take during the further progress of the case.

The making of a full, practical diagnosis, is, therefore, the most important, and often the most perplexing of all the duties devolving on the medical practitioner. If he succeeds in obtaining a clear and correct knowledge of the nature, progress and tendencies of the disease under which his patient is laboring, it requires but a short and easy process of induction to arrive at the rational indications for treatment: that is, to determine what needs to be done for the purpose of either mitigating or curing the disease, and re-establishing the health of the patient. And, having determined thus logically the indications for treatment which the case requires, a competent knowledge of the principles of hygiene, and of the materia medica, will readily suggest the best means for fulfilling the indications presented. I say a competent knowledge of the principles of *hygiene* as well as of materia medica, because I hope none of you will make so great a mistake as to suppose the treatment of disease consists solely in the administration of drugs.

A large part of the diseases coming under the care of the physician are caused by errors in diet, drinks, clothing, ventilation, and other matters included under the term hygiene; and no one can attain the highest degree of success as a practitioner who does not fully appreciate the importance of careful atttention to the hygienic influences affecting his patients.

The object of such attention is two-fold: namely, to remove or correct such erroneous habits and conditions as may be still acting as causes; and the substitution of such as will positively aid in the restoration of the patient. A comfortable temperature; a sufficient supply of fresh pure air; clean linen; a careful adaptation of the quantity and quality of food and drink to the capacity of the digestive organs to receive and assimilate it; and a quiet, cheerful, hopeful mental influence, are hygienic conditions of universal applicability in the management of the sick. I by no means approve of the modern doctrine of *expectancy*, which assumes that diseases must run their natural course, and that *art* can do little more than properly regulate the hygienic conditions of the patient, and leave the rest to that intangible something called *nature*.

And yet I cannot too strongly urge upon you the importance of making yourselves thoroughly familiar with the facts and principles of public and personal hygiene, and constant atten-

tion to their application in the daily routine of practice. It would not be inappropriate to represent hygiene proper as bearing much the same relation to materia medica that physiology does to pathology.

Therapeutic Methods.—Before closing this lecture I must invite your attention to a few thoughts concerning the principal therapeutic methods, or systems, as they are sometimes called, that have found advocates among the leading members of the profession in this and the preceding generations. Since the earliest periods of medical history, therapeutics, or the application of remedies in the treatment of disease, have been made to conform more or less closely to the co-existing ideas or doctrines in relation to the nature of disease itself. When the nature and phenomena of diseases were regarded as dependent on certain chemical processes called concoction, fermentation, crices, etc., the prevalent therapeutic system was founded on corresponding chemical notions, and had for its leading objects the hastening of the supposed concoctions, the maturing of the morbid humors, and their expulsion or neutralization.

When the theories of vitalism gained the ascendency, and all diseases were regarded as involving either debility (direct or indirect), or irritation, the prevalent therapeutic ideas were soon found aggregated into two leading and opposing systems. The one, founded on the pathological doctrine of debility, had for its leading object *stimulation.* The other, suggested by the idea of irritation, excitement, etc., had for its purpose diminution of excitement by sedation and evacuation, and hence popularly termed antiphlogistic. During the first quarter of the present century the pathological doctrines of irritation and inflammation gained their most complete control over the mind and practice of the profession. Almost every morbid condition was referred to one or the other of these processes; and, as a consequence, bleeding, general and local, emetics, purgatives, and alteratives, were in constant requisition in the treatment of even the most trivial ailments. But, coincident with this supremacy of the antiphlogistic method in therapeutics, came the rapid development of organic chemistry; the application of the microscope to the study of minute anatomy, both healthy and morbid; and the discovery of the fact that many acute diseases were self-limited in duration, and capable of progressing to recovery without the active interference of art. By the first, our knowledge of the composition and properties of the various morbid products, whether in the tissues, the blood, or the secretions, was greatly increased; and the doctrines of exclusive vitalism began to yield to a recognition of zymotic and blood-diseases. By the second, histological investigations were pushed in every direction, unfolding the minute anatomy of all structures, healthy and morbid, and culminating in the doctrine of *cell* growth as the basis of organic structures, and of the cellular pathology of Virchow. By the third, a distrust or skepticism concerning the curative powers of medicines was rapidly engendered, and a confidence in the restorative processes of nature correspondingly increased.

This tendency soon found marked expression in the writings of Jacob Bigelow, John Forbes, O. W. Holmes,

and others; and did not stop until it had effectually checked the heroic use of active remedial agents that had been developed under the preceding doctrines of inflammation and antiphlogistic therapeutics. Under these various influences the former theories or systems of medicine have been abandoned, and yet no other one law, either pathological or therapeutical, has succeeded in gaining any general control over the professional mind. The last twenty years have been characterized by great activity in the accumulation of facts and the multiplication of experiments in almost every department of medical science.

Indeed, it may be regarded as preeminently an era of observation and independent research, untrammeled by authority. And yet, you must not imagine that the present, with all its independence of thought, activity of observation, and vast accumulation of facts, is free from the influence of fanciful theories and bold attempts at generalization. The human mind, in the present, as in all ages of the past, is not only prone to generalize—to frame hypotheses based on a limited number of facts, but, having gained a favorite standpoint, to see all else through light radiating from that focus. Hence, the enthusiastic microscopist, after tracing all organized structures to formation out of primary cells; and structural changes, whether healthy or morbid, to normal and abnormal cell evolutions, naturally enters upon the study of etiology with the favorite instrument in hand, and soon finds organic germs, either animal or vegetable, in the blood, the secretions or the excretions of patients laboring under almost every variety of disease. And these germs are at once heralded as the efficient cause of the diseases with which they are associated. It requires but a hasty glance over the medical literature of the day to see that we have a large class of writers and investigators who are already referring the origin and propagation of cholera, yellow fever, influenza, and other epidemics, as well as many of the endemics, to organic germs. As all these organic germs have their definite periods of development, maturity, propagation and decline, it is consistent and natural to infer that the diseases to which they give rise should also have a definite course to run, which cannot be materially altered by treatment. Hence the *therapeutic* doctrines of this class are fairly expressed in the words palliation and expectancy, while they place great emphasis on hygiene and preventive measures. Another class, with their standpoint of observation in the laboratory of the organic chemist, see in the living system only a complicated series of chemical actions and reactions taking place in the blood, and between the constituents of that fluid and the organized tissues. So long as these processes are well balanced the evolution of caloric, electricity, and nerve force is natural, and health is preserved. But when, from any cause, the equilibrium is disturbed by some change in the chemical factors, the results are also abnormal and disease is established. By this class we have all the ancient doctrines of humoralism revived under the modern terms septicæmia, zymosis, blood degeneration, etc. Their therapeutics are, of course, largely antiseptic and antidotal.

A third class have their standpoint of observation in the physiology and

pathology of the nervous tissues, and they find little apparent difficulty in satisfying themselves at least, that almost every variety of action that takes place in living matter, whether healthy or morbid, is under the control of nervous influence.* With such the chief end of therapeutics is to modify the various morbid conditions of structure and function in nerve matter.

But a fourth, and much larger class than either of the foregoing, possessing no definite scientific or theoretical standpoint of observation, being swayed by the general current of reaction from the antiphlogistic system, and captivated, partly by the simplicity of the doctrine that all disease is a diminution of life,† and partly by the plausible eulogiums of "*nature*," and *her* all-controlling power‡ over disease, they have become essentially skeptical in therapeutics, and content to regulate the hygiene of the sick-room, amuse the patient with placebos and wait for "nature" to cure the disease; or, more properly, perhaps, wait for the disease to complete its course and disappear; for we find the greater part of this class not only skeptical in regard to the curative powers of medicines, but also firm believers in the doctrine that diseases have an independent existence, marked by growth, maturity and decline, which makes them, in a great measure, independent of the influence of medication.‖ At a period when investigations are pushed with so much vigor in every direction; when new facts are constantly appearing and old facts are being presented in new aspects; and when so much that is recognized as a part of medical science is but partially or imperfectly known; it is not strange that our literature should be filled with contradictions, better calculated to bewilder than to enlighten the student.

And yet, gentlemen, if you will patiently study the views I have presented to you in the preceding lectures, concerning the elementary forms of disease, the methods of investigation, the indications for treatment, and the principles governing the application of remedies, you will be able to follow me in the study of special pathology and therapeutics in such a way as to become rational and efficient practitioners; neither investing disease with the attributes of independent existence and self-determined duration, nor regarding the curative powers of medicine with a melancholy, vacillating skepticism.

There is one fact in therapeutics that I wish to impress indelibly upon your minds. It is, that the special influence of any and every remedial agent depends much upon the actual condition of the patient at the time it is administered.

For instance: a remedy that, administered in health, or in some conditions of disease, would produce a direct sedative or debilitating influence, if given in some other conditions would result in relieving the sense of oppression and weakness, and add to the strength of the patient. All writers class veratum viride, aconite and digitalis, among the sedatives; yet I have seen many

*See Brown-Sequard's Lecture in the Toner Course, at Washington, D. C., 1873.

†See Chambers.

‡See Essays by Bigelow, Forbes and Holmes.

‖See Dr. Gibson's Address before the British Medical Association, in 1870.

patients so debilitated by insufficient oxygenation and decarbonization of the blood, caused by an irregular, tremulous action of the heart, that they could not walk across the room, who, when placed enough under the influence of these articles to render the heart slow and steady in its beat, could walk or ride with ease. I have seen patients in the first stage of pneumonia, with the face deeply suffused with redness, the breathing short and oppressed, the pulse frequent and weak, and the feeling of prostration so marked that they were unable to rise from the bed, so relieved by one prompt, free bleeding, that they could not only sit up but walk about their room with ease. What are recognized as tonics and stimulants, given to the same patients in the same stage of the disease, instead of strengthening, would have added to the debility of the patients by increasing the local vascular fullness. Again, the same quantity of an anodyne or anæsthetic that might be required simply to render a patient comfortable when suffering from delirium tremens or severe neuralgia, might produce dangerous, or even fatal effects, if given to the same patient when well, or the nervous system not disturbed. Hence, I repeat, that the general effect of any and every remedy will be determined very much by the condition of the patient at the time of its administration.

And I can give you, gentlemen, no more important therapeutical law, or general rule of action, than to so investigate every case as to gain a clear and definite conception of the existing pathological conditions, and then apply such remedies as are most accurately calculated to remove both the morbid conditions and the causes on which they depend, without regard to either nosological arrangements or classifications of the materia medica. When the case is so obscure that a satisfactory idea of the actual morbid conditions cannot be obtained with all the aids for making a proper diagnosis that are within reach, then be content to palliate symptoms as they are presented from day to day, by mild means, rather than hazard doing positive injury by a blind exhibition of more active remedies.

ON AN IMPROVED TEST FOR DETECTING SUGAR IN THE URINE.

By W. S. Haines, M.D.

WITHOUT doubt, the best method that we possess, at the present time, for detecting the presence of sugar in the urine, for clinical purposes, is by the use of what is known as Fehling's test,—its simplicity, accuracy, and ease of application rendering it by far the most desirable of all the many tests that have been suggested. Unfortunately, however, associated with all these desirable features there are two serious objections, soon to be mentioned, which very materially limit the field of its usefulness and prevent the great majority of the profession

enjoying the advantages of its excellence. We believe, therefore, that certain suggestions which we are about to propose, in the way of modifying this test, so that its objectionable features are entirely removed while its many advantages remain wholly unchanged, will be found of value to the profession.

Fehling's test, as now usually employed, consists in making up, in the first place, a test solution, prepared by dissolving sulphate of copper, the neutral tartrate of potassium and caustic soda, in water, all of them being used in fixed proportions. A little of the clear blue solution thus produced is poured into a test tube and boiled, when no change should take place; now, a few drops of the suspected urine are to be added and heat once more applied, when, if sugar is present, a yellowish-red precipitate will be thrown down. This test acts admirably well, even in unskillful hands, and nothing better could possibly be desired, were it not for certain difficulties, to which we have alluded before, in making and keeping the test solution. Two of the constituents of this test liquid, the neutral tartrate of potassium and the caustic soda, are not found, in a state of purity, outside the large cities, and even in these latter are frequently to be obtained only with difficulty; hence, it becomes impracticable for the great majority of practitioners to use this test at all, from their inability to procure readily the necessary chemicals. But a still greater misfortune in connection with this test, is, that even after the necessary solution has been prepared, it frequently cannot be relied upon, for almost always, in the course of time, it will spoil and become worthless, owing to a reaction that is brought about by the presence of the neutral tartrate of potassium Consequently, this truly beautiful and accurate test becomes almost valueless, except to physicians living in the large cities, where the requisite chemicals can be easily obtained, and the test solution may be as often renewed as necessary.

Some two years since we commenced a series of experiments, with the object of discovering, if possible, chemicals to be substituted for the neutral tartrate of potassium and caustic soda, in Fehling's test solution, which would not decompose upon keeping, and which could be readily obtained whenever needed, and so, while retaining the great simplicity and great delicacy of Fehling's test, at the same time obviate its objectionable features. We soon found that glycerine* and caustic potassa exactly filled these requirements, producing a test liquid, when dissolved in water, along with sulphate of copper, which, even in uneducated hands affords most excellent results, and which two years of experience we think warrants us in saying will not decompose however long it may be kept. Moreover, these substances can be procured in a state of sufficient purity wherever a drug store exists, and, consequently, the test comes within the reach of every practitioner.

*We were surprised to find, a short time since, that this use of glycerine has been previously suggested by a foreign chemist, but we were entirely unaware of this fact while making our own investigations. Since, however, the employment of glycerine in testing for sugar is almost unknown in this country, we believe that our suggestions concerning its use will be quite as acceptable as if our proposal for employing it had not been anticipated.

The formula that we ordinarily employ for making up this modified and improved test liquid, is the following:

Take of sulphate of copper, thirty grains; of hydrate of potassium (in sticks), one and a half drachms; of *pure* glycerine, two fluid drachms; and of pure water (distilled is best), six fluid ounces. Divide the water into two nearly equal portions; in one of these parts dissolve the sulphate of copper and the glycerine, and in the other portion the hydrate of potassium. Mix the two solutions and stir until any precipitate which may in the first place be formed is entirely re-dissolved. The test liquid thus prepared may now be poured into a bottle and set aside until needed.

It will be perceived that this solution may be made up with the greatest possible ease, and any physician, in ten minutes of spare time, can procure the necessary chemicals and prepare enough of it to last him a year or two, even if he be frequently called upon to use it in testing for sugar. It will, perhaps, however, be frequently found most advantageous for the physician to send the formula as given above to some druggist and have the test liquid prepared by him, just as if it were a prescription for some medicine. When well made the solution should be a perfectly clear, dark blue liquid, free from sediment, and a little of it boiled in a test tube should undergo no change. During the first week or two after it is prepared a slight reddish precipitate of the sub-oxide of copper (cuprous oxide) will be thrown down, owing to the presence of trifling impurities in the glycerine and caustic potassa employed, but after this no further change will take place in the liquid, however long it may be kept, if the chemicals employed in preparing it were reasonably pure. We have in our possession a quantity of this test solution prepared nearly two years since, and yet it is in as perfect a condition now as the day it was made.

After a quantity of this solution has been prepared, testing for sugar in the urine becomes a matter of the greatest simplicity, and ought not to occasion the physician the slightest trouble. An ordinary sized test tube is to be filled to the depth of half an inch or so with the test liquid, and heat from any convenient source applied until it boils, when no change whatever should ensue. Now, two or three drops of the suspected urine are to be added, the test tube shaken slightly, so as to cause a mixture of the two fluids, and heat once more applied. If sugar is present in any considerable quantity, an abundant precipitate of the yellowish-red sub-oxide of copper (cuprous oxide) will be produced, and this, remaining for a while suspended in the liquid, will make the latter appear almost opaque, by reflected light. If, however, the test solution undergoes no change on thus treating it with two or three drops of the urine under examination, we may be certain that no considerable quantity of sugar is present, but in order to demonstrate its *entire* absence it will be necessary to continue the addition of the urine, until a quantity has been added equal to half the bulk of the test liquid, and then apply heat once more. If any sugar whatever be present it will now show itself by causing a characteristic precipitate of the sub-oxide of copper—it may be, however, only in small quantity. But, if on the contrary,

sugar be entirely absent, no change in the test liquid will ensue, except a lightening of the color from the dilution, and the appearance of a white, flocculent deposit of phosphates floating about in the light, greenish-blue liquid. Care should be taken not to mistake this phosphatic deposit for one of the sub-oxide of copper; the former is white and flocculent, the latter yellowish-red and shows no disposition to form flocculi.

Such is the simple method of employing this test liquid, and if in using it an ordinary amount of care be observed, the result may be implicitly relied upon, which certainly can scarcely be said of the other tests for sugar in the urine.

If we wish to determine not merely the presence or absence of sugar, but its quantity also, we may, by the use of the test liquid as prepared above, arrive at very accurate results, employing the volumetric process, such as is used with Fehling's unmodified test solution in making quantitative determinations. But as this method requires considerable apparatus which practitioners seldom possess, and necessitates the expenditure of not a little time and skill, it becomes almost impracticable for ordinary clinical uses. But rough approximate results, which in the majority of cases are all that a physician has practically any need of, can be readily obtained by observing the amount of precipitate that two or three drops of the urine will occasion in a drachm of the test liquid, boiled in a test tube,—an abundant precipitate indicating a large amount of sugar, a slight precipitate a small quantity, and so on. We may by this means compare from day to day, or week to week, the amount of sugar in diabetic urine, and thus judge, somewhat crudely, it is true, of the progress of the disease and of the effects produced by the treatment employed.

We believe that this improved Fehling's test which we have just described somewhat in detail, is possessed of advantageous features found in no other test, and we are confident that almost every physician who will once employ it will be exceedingly loth to return again to any of the previously used methods, none of which can compare with it in simplicity, delicacy, and ease of application.

UNIVERSITY OF BERLIN.—According to the *Gazette de Cologne* there was a marked falling-off in the attendance upon the winter course of 1873 and 1874 in the Berlin University, especially noticeable in the medical department. This diminution is attributed to the increased advantages, not only at Leipsig, but also at Halle and many other Prussian universities, and particularly at Gottingen.

DR. GARABETTI (*London Lancet*) has obtained the best results from the administration of enemata of potass. brom., in doses from one-half to two drachms in cases of obstinate vomiting attending the pregnant state; the same drug, also administered in enema, has been very useful in the hands of Dr. Laborde, of Paris, in obstinate vomiting connected with disease of the stomach, liver, and intestines.—*Med. News and Library.*

Translations.

PROGRESS OF MEDICAL SCIENCE IN GERMANY.

By Edmund J. Doering, M.D.

I. Treatment of Diphtheria and Scarlet Fever, by Dr. G. Meyer (*Jahrb. f. Kinderheilk.*, vii, 4). II. A Case of Displacement of the Spleen, by Dr. Pirotais (*Arch. Med. Belges and Med. Centr. Zeitung*, No. 86). III. Intermittent Nightly Hæmoptysis of Consumptives, by Dr. C. Gerhardt (*Deutsche Z. f. pr. Med.*, No. 43, 1874).

I.

DR. MEYER is strongly in favor of the treatment of diphtheria with ice. Even in children under the age of one year he directs small pieces of ice to be put frequently into the mouth, followed, if possible, every minute or two, by a teaspoonful of ice water. The ice must be pure, and therefore ice artificially prepared is preferable. In severe cases the external use of cold, by means of an ice bag applied around the throat, is very useful. The author has found that by this mode of treatment the fever soon diminishes and the diphtheritic membrane is detached and expectorated. It is only in exceptional cases that the disease extends nevertheless to the larynx. In but one case the author was obliged, in order to reduce the temperature, to resort to cool baths. The latter he also found of great service in scarlet fever. Whenever the temperature exceeds 102° in scarlet fever the patient is to be placed for ten minutes in a bath of a temperature varying from 93° to 73°, according to the intensity of the fever. The effect of these baths in reducing the temperature lasts for several hours.

II.

Various causes may produce displacement of the spleen. These are either physiological, as the respiratory act, or morbid, as hydrothorax, ascites, abdominal tumors, and abnormal conditions of the splenic ligaments.

Different observers have reported interesting cases of this sort, viz.: Choisy, who found the spleen freely movable in the abdominal cavity; Matter likewise in the regio-iliaca and hypogastrica; Faudacy, in the inguinal region; Van Swieten in the pelvis, and, finally, Devergie, who found the spleen in the thorax after rupture of the diaphragm.

A sudden displacement of the spleen is of rare occurrence, on account of the strength of the ligamenta phrenosplenica and gastrosplenica, which are not easily torn, as can be demonstrated on the cadaver. But that it may occur, is shown by the following case:

A lady, thirty-five years old, who had always been healthy, was injured by a fall from a wagon, which produced great pain in the left hypochondriac region, vomiting, and inability to move. The attending phy-

sician found a tumor at the site of pain, to which he applied leeches and friction, with mercurial ointment, but the pain and vomiting continued.

The writer was called in to see her about six weeks after the accident occurred. On examination he found a somewhat movable, circumscribed tumor, in the left iliac region, six inches in length and three and a half inches in breadth. Pulse 80; temperature normal. He diagnosed the tumor to be the spleen and returned it to the left hypochondriac region, retaining it there by a compress and a firm binder.

After the reduction the pain and vomiting subsided. A few days later the patient was able to retain food and to leave her bed, to which she had been confined ever since the accident.

III.

Observation of the bodily temperature in phthisis pulmonalis discloses a number of interesting facts. It will be found that quite a number of patients are for a long time free from fever, while others again, from the slightest complication, have a high temperature. If the measurements are made frequently, about every three hours, one observes that the fever is of an intermittent type in the majority of patients. Toward the last stage of the disease in patients who are much exhausted, the morning temperature is often below normal, at times as low as 97° F.; not rarely the fever takes on a typus inversus for one or more days, *i. e.*, morning exacerbations and evening remissions. Jochman believes this to be due to complications. The author has observed this type of fever most generally in patients who did not rest well the night previous. He remembers especially one instance, when, after a severe thunderstorm during the night, more than half of the numerous consumptives in his wards showed an increase of temperature in the morning. The remission of the fever occurs generally during the hours from midnight till morning, the temperature rising in the forenoon and reaching its maximum height towards evening.

The daily chill of many consumptives corresponds to the rise, and the night sweats to the fall of the temperature. During the fever the vascular pressure diminishes, the arteries relax and widen, the secretions are diminished, and there is a retention of water in the system. Vice versa during the remission, the vascular pressure increases, the arteries contract, and the surplus quantity of water is eliminated in the form of profuse sweating. Now, in many consumptives, there is a morbid friability of the smaller blood-vessels, which are just able to resist the diminished vascular pressure during the fever, but not the increased pressure during the remission, hence rupture and hæmorrhage result. To this fact the author attributes the nightly attacks of hæmoptysis occurring in two of his patients for several nights in succession.

The patients were sleeping quietly and perspiring freely when they were suddenly awakened by a desire to cough, accompanied by the expectoration of bright red blood, varying in quantity from a tablespoonful to a small spittoonful. The average quantity each time was from three to six ounces. These hæmorrhages were distinguished by their regular return during the remission of the fever at

night, and the author therefore justly terms them attacks of nightly intermittent hæmoptysis. In the above cases the usual hæmostatics were given, as tannin in large doses, ergot, mineral acids and inhalations of the chloride of iron, but without success. The author then gave large doses of quinine with the view of breaking up the fever, in order to diminish the fluctuations in the vascular pressure. The result established the correctness of the author's views, for the hæmorrhages were thus stopped at once. A subsequent return of the hæmorrhage subsided likewise on the renewed administration of fifteen grains of quinine, given in the morning. One of the patients finally succumbed to the extension of the disease. The other regained sufficient strength to travel home.

The author also believes that hæmorrhages occurring during the remission of other fevers ought to be considered from this standpoint.

He has seen several cases of sudden death of very old men during the crisis of pneumonia, from cerebral hæmorrhage. The author therefore concludes that special attention ought to be paid to the proper elimination of the secretions during the crisis of pneumonia, and, when retarded, we should take into consideration the propriety of performing venesection.

Editorial Department.

THE EXAMINER FOR THE COMING YEAR.

THE present number of the EXAMINER is presented to our readers enlarged and in a new outside dress.

For three years past our volumes have contained more reading matter than any other three dollar journal in the country. A constant and steady increase in our subscription list has enabled us with the commencement of each year to increase somewhat the size, as well as to improve the style and character of our issues. For the coming year the semi-monthly numbers will be similar to the present, containing each thirty pages of reading matter. Sixty of our double column pages per month is fully equal to eighty pages of the ordinary octavo form. For any of the other medical periodicals giving this amount of reading matter the subscription price is placed at four or five dollars.

We have an active and efficient corps of assistants and contributors in the various departments, and shall commence the coming year better prepared than ever before to maintain the value and interest of our publication.

In order to sustain the very considerable increase in expenditure we ask, and confidently expect, that *all* of our *old friends and subscribers* will promptly renew their subscriptions at or before the commencement of the new year.

We shall adhere strictly to the sys-

tem of advance payment of subscriptions in all cases. A failure to renew, or to order the continuance of subscriptions after their expiration, is considered equivalent to a discontinuance. This is the only system upon which a periodical can be efficiently or successfully conducted, and in the end is much more satisfactory to the subscribers as well as the publishers.

Many new subscriptions for the coming volume are already arriving and we hope to commence the new year with an increase of at least one-half in our circulation. Let all of our friends speak a good word for the EXAMINER to the physicians in their own neighborhood, and they will easily obtain for us two or three new subscribers.

In our announcement of club rates we offer any of the three dollar journals at two-fifty; the four dollar journals at three; and the five dollar publications at four dollars, in connection with the EXAMINER. Those physicians who have been in the habit of subscribing for two, three or more journals, at full rates, will thus be enabled to save sufficient from the other subscriptions to make up the price of our journal.

We would also call attention to the fact that the new postal law, which goes into effect January 1st, requires us to prepay postage on all numbers sent to subscribers. The postage for the year will amount to fifteen cents. This amount we shall charge on to the subscription, and subscribers will please bear in mind the fact in forwarding their money.

Correspondence.

BELLADONNA vs. OPIUM.

EDITORS EXAMINER: The following case may be of interest as additional testimony of the efficacy of belladonna in opium poisoning.

Mr. P——, aged sixty-four, of delicate and feeble health, designing to relieve himself of the cares of this life, wrote his own obituary, gave directions for his secular affairs, bade good-by to his friends, swallowed eight grains of sulph. morphia, took to his bed, and considered himself ticketed out of trouble. He took morphia between the hours of 12 M. and 2 P. M.; was not discovered until 6 P. M. to be unwell, being alone until that time, and then considered to be only in a heavy sleep, and was allowed to remain until 9 P. M., when I was called. I saw him at 10, eight to ten hours after taking the morphia. I found him in a deep sleep; stertorous breathing; respirations eight to ten per minute; pulse 60, full and hard; almost total insensibility to external impressions. External irritants, violent agitation, cold douche, moving him about the room, supported by two strong men, he making no effort to support himself, were resorted to without any change from the deep

coma. Electricity and coffee were tried; very little coffee could be swallowed. Receiving no hope from the above I laid him upon the bed and gave him a large teaspoonful of tr. of belladonna, at 11 P. M. At the end of thirty minutes, finding no change, repeated belladonna. In twenty minutes, decided enlargement of the pupils, breathing better; hands and feet that had been cold and clammy, sweating, gave evidence of returning warmth. At 12 gave third dose of belladonna. 12.30, pupils twice ordinary size; pulse 80, much less in force and volume; hands and feet dry, breathing better; unable to make him give evidence of consciousness to external irritation. 2 P. M., gave one-half teaspoonful belladonna. At 3 P. M. pulse 100, moderate in force; breathing much better; ordered carb. ammonia, 5 grains in a little sweetened water, to be repeated every hour with beef tea, and instructions to keep him warm; left with orders to call me if any change before morning. At 7 A. M. found him breathing easy; would withdraw his hand from electro-magnetic current; drank cup of coffee; continued stimulants. At 12 M. would make efforts to answer questions; hands and feet warm; considerable prostration. At 2 desired to make water, and stood upon his feet to make the effort; did not pass any urine. Left him with instructions to continue ammonia and watch for any lack of circulation, to call me on any new development. Reported to have passed a quiet night; next morning insisted upon going to the table, and walked out and ate with the family, still showing great prostration. Having my time fully taken up, and assured I should be notified if not doing well, also a member of the family having visited me and reported favorably, I did not again visit him. At this time his medicine gave out. They, thinking he did not need more, did not report to me. During the following afternoon he showed great prostration; at 6 P. M. hands and feet cold, pulse reported very low. During all this time no medication was given. At 8 P. M. he died. I think the belladonna is entitled to the credit of having passed him over the stupor of the morphia, and that had suitable stimulants been given during the stage of nervous prostration, he would have recovered from the injury of the opium poison.

O. T. MAXSON, M. D.

Waukegan, Nov. 15th, 1874.

PERIOSTEAL FLAPS IN AMPUTATIONS.—Tizzoni believes that the results of numerous operations on animals and occasional examinations of the stumps of patients, justify him in making the following statements as to the advantage of periosteal flaps:

1. The operation is easily performed. At the present day, when pain and blood is spared the patient, it is a matter of small consequence if a little more time is consumed than usual. 2. The periosteal flaps retract considerably, but equally and without wrinkles. 3. These flaps will remain spread over the cut surface of the bone. 4. In twenty-four hours there will be a firm adhesion between the medulla and the flaps. Later, they consolidate with the bone. This early adhesion is of the greatest practical significance. It protects the medulla from the influence of the pus that may possibly form about the end of the bone.—*Riv. Clin. d. Bologna, Allg. Med. Central Ztg.*, 74, 1874.

Society Reports.

TRANSACTIONS OF THE CHICAGO SOCIETY OF PHYSICIANS AND SURGEONS.

REGULAR MEETING, NOVEMBER 23, 1874.

Reported by Ralph E. Starkweather, M.D.

DR. JOHN BARTLETT, President, in the chair.

Prof. DeLafontaine gave to the Society his views upon the hydrate of chloral in its action, together with details of experiments made by him and by Dr. C. P. Simon, upon rabbits, cats and sheep, by the hypodermic injections of chloral.

Prof. DeLafontaine thought that the hydrate of chloral diminished the available oxygen of the blood by poisoning the red discs by the carbonic oxide gas set free in the action of chloral. That a person frequently taking chloral hydrate suffers from its effects as he would from frequent venesection. In poisoning by chloral, the blood taken from the jugular vein before death is red as carmine; after death, for some time, it will not coagulate, and the condition is like that of one who dies from suffocation. The test by the spectroscope for the carbonic oxide was then given. If the blood is healthy there will be the two dark bands of absorption, yellow and green; if the blood has been poisoned by the carbonic oxide the bands will likewise be the same; but when treated by the hydro-sulphide of ammonium the two dark bands coalesce in the normal blood, but there is no such effect whatever in that which is poisoned. The chloral changes the form of the red discs; their shape is lost and they become elongated, shrivelled and rugose. Frequent use of chloral will ultimately ruin the health, as much so as the constant use of morphine.

Dr. Simon, in relating the experiments he had made, remarked that he was not quite of the same opinion as to the dangers of the hydrate of chloral as expressed by his friend Prof. DeLafontaine. The subject of anæsthesia and chloral and the experiments made by Dr. Simon and Prof. DeLafontaine were then discussed by the Society.

Dr. Owens reported a case which he had previously reported as recovered, in which the patient has since died.

It was an operation for the removal of a colloid multilocular ovarian tumor. The patient died from septicæmia. A chart of the pulse, respiration and temperature accompanied the paper, and also a report by Dr. Danforth on the microscopical examination of the tumor and its contents.

Dr. Hollister read an elaborate article upon the subject of catalepsy, illustrating the same by details of a case of rare interest now under treatment at the Mercy Hospital. The full details of this case will be published in an early number of the EXAMINER.

Gleanings from Our Exchanges.

CLINICAL LECTURE ON CROUP.

By Dr. H. Roger.

From Obstetrical Journal of Great Britain and Ireland.

M. ROGER had exhibited at a single clinique a great many more cases of croup than one would see in two or three years of private practice, where the disease is not so common as one might at first be disposed to think. What one often meets with in practice is *false* croup; for example, in Paris there are about one hundred cases per day, while the hospital is the ordinary theatre of *true* croup, and but rarely the refuge of false croup. The reason of this is easy to see; it is because croup without false membranes does not last, or lasts only a few hours, and the little patients, being suddenly attacked in the night, are not sent to the hospital.

Croup, at Paris, is much more frequent than it was thirty or forty years ago; it is true that the population was then less by two-thirds than it is now, for in 1832 (the year of the cholera) the capital contained only 745,000 inhabitants. There exists, however, at the present time, a notable difference between the different kinds of croup; we have only to read the statistics to see that in membranous sore throat one out of every two patients dies, but in croup four out of five. We are, then, naturally impressed when we see so large a number of cases of croup. Apropos of this, M. Roger reminds us that when he was *interne* at the Children's Hospital, under M. Guersant, he saw during a whole year only four or five cases of croup. In the present day tracheotomy is performed about one hundred times a year, and M. Roger has seen even two hundred cases of croup operated on in a single year; at St. Eugenie's Hospital the number is still higher. Considering then, that there are on an average from two to three hundred operations annually in the two hospitals, we may conclude that there are about five hundred cases of croup. Formerly there were very few operations performed, three or four in the year. In the present day, however, the number of cures is greater.

Croup is a contagious disease which operates in epidemics of greater or less gravity, and which presents in different cases differences as to its history, its symptoms, and its form. To illustrate this M. Roger presented six little patients whose cases in more than one particular excited some interest. The first case was that of a little girl suffering from typhoid fever, who had been seized with membranous sore throat, which threatened to become croup; the second was a boy in M. Labric's ward, who was attacked with croup and measles at the same time; then another little girl and another little boy, operated on on the 9th April; in these cases the illness had begun by sore throat which became membranous, followed by croup. Then came a boy who had been operated on on March 31st, and who went on as well as possible. Lastly, a little girl, cured of croup, but who was at the time suffering from pneumonia, which came on during her convalescence.

What does clinical observation teach us? That there is a false croup and a true croup. False croup is simple inflammatory laryngitis, shown by the redness of the laryngeal membrane; in the more severe cases it is complicated by œdema, but *there never exist what are called false membranes.*

What then is true croup? We must begin by explaining certain words. It has been said that there are two kinds of croup, *inflammatory* or *strangulatory*, and *common* croup. This last is not a satisfactory name, and is inexplicable by any clinical observation. It is, in fact, the same with croup as with scarlet fever, for example, in which we admit two degrees but not two kinds of scarlet fever. In croup, says M. Roger, the degree of poisoning is in proportion to the length of the false membranes.

Localized Croup has also been called *herpetic croup*. This word gives an incorrect idea of the thing; the mistake consists in trying to make a variety of it; it would be better to call it a *mild* form, in opposition to the *generalized* or *malignant* form.

Croup is very variable also in its mode of generalization, whether there exists a laryngeal, or pharyngeal, or bronchial lesion; sometimes there is also coryza or sore throat. This croup has been called *infectious* or *toxic*. What constitutes the gravity of the disease is not, properly speaking, the false membrane, for the operation does away at once with that obstacle, but its reproduction and propagation.

Croup may be *primitive* or *secondary*. Secondary croup occurs in the course of a disease already existing, and has evidently a pathological connexion with the first illness. It may succeed *measles*, in which the laryngeal-bronchitic element has been predominant, and in which children are sometimes attacked by severe laryngo-bronchitis, which may become transformed into secondary croup. In the same way, in scarlet fever, there is a scarlet-fever sore throat, membranous, which sometimes, though not often (as Trosseau and G. See have observed), by invading the larynx, may become secondary croup. In the case of the little patient in M. Labric's ward it is not one of secondary croup, because the croup and the measles appeared at the same time: the false membrane was first seen March 30th, the croup, properly speaking, on the 8th April, measles having shown itself on the 4th April. How shall we name the other forms of croup, which appear as complications; for example, that in typhoid fever, where no pathological relation can be said to exist between the two diseases? In these cases the croup is quite accidental.

It remains, then, to find out what epithet should be applied to the croup which succeeds severe membranous sore throat, and which is, in fact, characterized by the extension of the false membranes to the larynx. M. Roger calls it *successive* and not *secondary*. The same thing may be said of the croup, which begins by a membranous coryza, the plastic productions invade the larynx equally in this case, and it is again the same process of intoxication.

Etiology.—Croup is a *specific* and contagious disease. This definition justifies all the causes attributed to the disease. Forty years ago *cold* was said to have a great share in its production; that notion is true in so far that in the cold season croup often assumes a more serious character, being complicated with inflammation of the respiratory organs. Thus, at the present moment, (April,) instead of twenty-five per cent. as the proportion of cures, we find thirty and even forty per cent. Season and climate, however, have no absolute influence; as examples of this we may cite the epidemics which took place in the seventeenth century in Spain and Italy, and the Syrian ulcer described by Aretee, of Cappadocia. (In Cappadocia the thermometer marks 38° C. in the shade.) If misery has any influence in determining croup, it is owing to the crowding, the packing up, if one may say so, which results from it, and which constitute the most favorable conditions for contagion. *Sex* has no influence on croup. *Age*, on the contrary, has certain privileges in this respect. Although a person of any age may have croup, children are the most often attacked, and that principally between three and four years of age. In second childhood croup is rare;

and it is quite the exception with adults.

As for the *contagiousness* of croup, it is very great and only too evident, and more evident in town than in hospital. Let us take as an example one personal experience among a thousand, related by M. Roger. He was called to Boulogne-sur-Mer to see a child attacked by croup, but arrived an hour too late, as the child was dead. The ordinary medical attendant, a very able practitioner, former *interne* at the Children's Hospital, had taken the precaution of sending the other two children to Paris. The father also returned to Paris, and, notwithstanding the time (fourteen days) that had elapsed since the death of the first child, the other two children were attacked with the disease, and carried off in a few hours. Have we not had the grief of numbering also among its victims some of our illustrious masters—Gillette, Valleix, the son of M. Blache? to these names, whom we may designate the children's doctors, respect imposes on us the duty of adding another compatriot, the son of M. de Salle, an esteemed practitioner of Chalon-sur-Marne, who died a victim to his devotedness. Mothers are not exempt from the membranous sore throat and the croup of their children; after them come the nurses; lastly, more rarely it is true, the fathers take the disease.

Forms and Symptoms.—Croup presents three forms for consideration—the mild form; the *medium* form, which is the most common; and lastly, the *toxic* form—toxic from the onset, or rather in which the poison is evident.

M. Roger, in studying the symptoms of this affection, has no intention to describe them completely, nor to enter into every detail of the symptoms, but merely to speak of the more salient points and to dwell only upon those which are of importance in a clinical point of view. It is an easy matter to recognize mild croup from the grouping of the symptoms; it is the same in this respect with toxic croup, as the phenomena of poisoning are very recognizable: medium croup, on the contrary, offers certain difficulties, certain snares which are to be avoided, and of which it is well to be forewarned.

It is all-important to distinguish with care the *first period*—that is to say, the *anginous period*, for croup suddenly setting in is rare. Bretonneau used to say, very rare; but the proportion which he has set forth, one in twenty or thirty, is exaggerated. We would give the ratio as one or two in ten; this croup commences in the larynx, especially if it succeeds measles; one can understand that in this case the poison has so much the greater hold, as the mucous membrane is already affected.

The anginous period is almost invariable, and is characterized by the usual phenomena of sore-throat: *a little pain* in the throat (it is necessary to bear in mind that amongst children *sore throat is not painful*), some *redness* and *cough*, and a slight *dyspnœa*. This period is, so to say, latent, and passes in general unperceived by the patients. Sometimes one discovers *false membranes*, which are then situated on the internal face of one or both tonsils, and which consist of patches more or less extensive, which are to be distinguished from the pultaceous or caseous exudation of ordinary sore throat or tonsilitis. What puts one on the track of the disease is *adenitis:* the submaxillary glands, those at the angle of the lower jaw, and even those of the lateral and posterior cervical region are tumefied. The cough presents nothing particular, it is the cough of simple bronchitis. This period lasts two or three days.

Then come the phenomena of the *laryngeal period;* the poison of the throat is at the larynx. An *attack of suffocation* serves as prelude, and makes us think of croup. The *cough* is *hoarse, broken*, a little *rough* and metallic.

The *voice* is *suppressed almost suddenly* (a characteristic sign). The *respiration* gives some important characters of recognition: it is *slow, pain-*

ful; the chest heaves, the nostrils dilate, there is, in a word, *forcing* of the breath. A sign which is of great value is *noisy respirations*, audible at a distance, rough, at first intermittent, and which the change of position causes to cease, but continues more and more, and which exists no longer in inspiration only, but also in expiration. This is what is called *sawing laryngeal wheezing* (*sifflement larynge serratique*) which becomes more and more manifest in the proportion in which the disease makes progress. Stethoscopic signs are absent; auscultation of the larynx elicits nothing else but a snoring; and there are, perhaps, few practitioners who have heard the *flapping sound* (*bruit de drapeau*) which M. Barth points out; M. Roger, for his part, has never heard it. In *auscultation of the chest* it is difficult to hear the minute vesicular sound, which is almost totally extinguished by the laryngeal snore. As for the rest, the air reaches the lungs in small quantity, and seems to pass into a contracted orifice.

There are tolerably simple means of distinguishing the true from the false croup. Thus, croup never commences all at once, but after two, three, or four days of prodromata. Œdematous or erythematous laryngitis on the contrary, commences directly with laryngeal symptoms; between midnight and one o'clock in the morning the cough resembles a sort of barking, the voice is retained, and the respiration is free in the intervals of the attacks. Sometimes this laryngitis is more intense, and the attacks become more continuous, the fever is considerable, but the voice is not completely extinguished as in the true croup. Finally, by auscultation, one cannot perceive the absence of the vesicular murmur.

What are *diseases which can still simulate croup?*

1. *Œdema of the larynx;* but it is exceedingly rare amongst children, and by the examination of the superior part of the arytenio-epiglottic folds all doubt is removed.

2. The introduction of *foreign bodies*, such as a cherry-stone, a bean, &c.: but there is no fever; besides, recollection comes in aid, as well as the other signs of which we have spoken.

3. *Retro-pharyngeal abscess*, which gives rise to these symptoms—cough, fever, difficulty of respiration, suffocation; but the examination of the throat suffices to put an end to all idea of croup.

PUERPERAL INSANITY.

By W. W. Godding, M.D.

THE vagaries of lunacy, the varying phases of mental delusion, are interesting enough as a diversion, but are of very little concern to the practitioner. That "It pleased God to form poor Ned a thing of idiot mind" hardly arrests our attention beyond the passing wonder why He made him at all; but the question, What can I do with puerperal insanity? may any hour in the day become a practical one to be decided by any one of us. Given a case: what will you do with it? Cases of puerperal mania in the great majority of instances either die within the first two or three weeks from exhaustion with typhoid symptoms, or recover somewhat rapidly, the excitement subsiding at the end of a few days or weeks, rarely continuing months. The exceptional cases neither die nor recover, but pass into chronic dementia. In the onset of the disease there are usually some slight premonitions of a wandering mind, but the nurse

does not always remark them, and the explosion follows so soon that an outbreak of violence or destructiveness or obscenity may be the first intimation of what has happened. You find your patient up, walking about the room, or held in bed by two or three strong women, or, it may be, she is lying still, tearing her clothes, swearing, or pouring out a stream of obscenity so foul that you wonder how in her heart of hearts such phrases ever found lodgement. Now what will you do with her? Many answer by promptly sending the case to a hospital, which I have no doubt is very often the best and only thing that can be done, though I have wondered if my considerable experience with typhoid exhaustion had any connection with this promptness. It is certainly to be gravely considered, whether in the first few days after confinement the risk of removal to a hospital at any considerable distance does not more than counterbalance any possible greater benefit to be derived from hospital treatment. Consider, too, before you send to the hospital, that that is a step which once taken can never be recalled out of her life. Treat the case at home, and should it terminate fortunately, the excitement subsiding in a short time, the memory of it in the minds of friends will be of a sickness with some delirium, a little queer as women often are after confinement. Send to the hospital, and, though recovery is rapid and satisfactory, and the woman herself has rather a pleasant recollection of her convalescence, as is generally the case when the recovery is complete, still, she has been insane, and this is never forgotten by her friends or her children; henceforward there is a certain dread of what may be in the future, a skeleton in the closet, not mentioned but always there.

So, the circumstances and condition of the patient justifying, you decide to attempt the treatment at home. You want good nurses who will not gossip, and who are not afraid. The points to be gained are rest in bed, sleep, nutrition. But your patient will not stay in bed; then make her do so. Do not wear out her strength and the patience of your nurses; provide a strong brown linen waist, made full in the bosom, fastening behind, with the sleeves closed at the end and prolonged a yard beyond the hands, then you have something soft and strong that can be tied together behind the back; sometimes you will not need to keep it tied; sometimes, even when tied, she will keep struggling out of bed, and it is a constant exertion for the nurse to keep her in; then pass sheets under the arms and lash her to the bed. Have no nonsense about the looks of the thing; here is one of the cases where "the life is more than raiment." Remember, it is a woman's existence you are trying to save, that typhoid exhaustion is waiting for you if you let her wear out her strength. Perhaps when fairly secured in bed she will go to sleep; that is the best possible result if it comes without hypnotics; if not, perhaps food will bring it. There is an imperative demand for a good supply of easily assimilated nourishment. The patient usually takes it irregularly, but tact on the part of the nurse will generally insure its being taken without forced feeding. Milk I have found about as well taken as anything, which reminds me to say here, entirely out of connection, that you need have little concern about the milk in the breasts; a broken breast is the rarest event in puerperal mania; conservative nature closes this drain on the system at once without your interference.

But you do not get sleep with the administration of food, or from the horizontal position in bed; what then? You have bromide of potassium, chloral hydrate, morphia, including subcutaneous injection of the latter. I would try them in full doses in the order I have named. If they succeed, and they often will partially at least, well; if not, do not overpower the strength by cumulative doses of narcotics, they will not generally give what you are seeking; but darken your room, keep your nurses

back, maintain the horizontal position, and dare to wait. It is wonderful how long sometimes the insane will live without sleep, and still recover. Watch the strength; if that keeps up, and the tongue and mouth are not very dry, food is better than stimulants. You will not, however, send away all the brandy simply because the woman has recently been confined. Milk punch will sometimes give the sleep you are seeking. Convalescence will not necessarily follow sleep; sometimes there is a fair amount of sleep from the start, but the excitement goes on. In most of these cases I have considerable faith in bromide of potassium, in doses of twenty grains, three times daily. I often give it with compound tincture of cinchona where there is lack of strength.

After you get the sleep, remember that a little time is almost always needed before much or any improvement appears; but, no improvement showing after several days, you may then fairly feel that it is better to send to the hospital. Then state to the friends that the case is likely to be of some weeks' continuance, and when decided to remove, the sooner it is done the better. Your patient can probably travel with less risk than a week earlier, and you will have the consolation of having given the case a fair trial at home, and in many cases will, I think, have the satisfaction of seeing it recover there.

ANÆSTHETICS.

From The Doctor, Nov. 1, 1874.

IN our last issue we gave an account of Nelaton's treatment of chloroform narcosis, as related at the Norwich meeting of the British Medical Association in papers by Dr. Marion Sims and Sir J. R. Cormack, M.D.

In the same section (Surgery) there was also read a paper "On the Administration of Laughing Gas and Ether, singly, or combined in any Proportion desired," by Mr. J. T. Clover, whose apparatus possesses great advantages.

The pungency of ether-vapor, when not largely diluted with air, and the frequency of violent delirium when it is so diluted, were spoken of as serious objections to its use. Mr. Clover's apparatus supplied, first, pure laughing gas, which was not unpleasant to breathe; and afterwards, by turning a dial on the face-piece, supplied ether-vapor gradually. This was done with the hand which held the face-piece, and consequently the other hand was at liberty to feel the patient's pulse. Less ether was required than when no gas was used; consequently, less of it was absorbed by the tissues of the body, and recovery from the effects of the anæsthetic took place more quickly and with less intoxication.

Mr. Lawson Tait differed from Dr. M. Sims as to the cause of death from inhaling chloroform being due to cerebral anæmia. He thought it more probable that the explanation lay in some poisoned condition of the blood. There was no evidence to show that death from chloroform ever occurred to an infant or to a woman during labor.

Dr. Humphry thought the administration of chloroform greatly increased the responsibilities of operative surgery; and there were few surgeons who had not experienced that dreadful suspense in cases of chloroform narcosis where death appeared imminent. He thanked Dr. Sims for the additional hint as to what to do in cases such as these. Dr. Humphry thought that allusion had not been made to those cases where death took place at the early part of the administration, preceded

with violent convulsions. He considered that such cases could not be attributed to cerebral anæmia, and he agreed with Mr. Lawson Tait that an explanation was to be sought in some altered condition of the blood. He suggested that nerve exhaustion might explain this, violent excitement being followed by correspondingly intense depression. He had observed, in cases of death following upon chloroform narcosis, that the blood was of a consistence like treacle.

Mr. Baker mentioned that he always gave the patient a dose of brandy before proceeding to administer chloroform, with very good effect.

Mr. Lund alluded to the importance of always having at hand, when administering chloroform, means for applying galvanism, and illustrated this by cases which had come under his notice at the Manchester Infirmary.

Sir J. Rose Cormack attached less importance to inversion than Dr. Marion Sims, and thought it would be a dangerous mistake unduly to exalt its efficacy. In cerebral anæmia from any cause, the patient ought, as a rule, to be placed in the horizontal position, with the head low and the feet raised about a foot. The cases in which inversion is called for are rare —quite exceptional. It ought, moreover, to be performed most carefully and watchfully—tentatively, in fact. Too long continued inversion may prove very dangerous by causing distention of the right side of the heart, which will in turn cause and maintain a cessation of its contractions—which causes death in a certain class of cases of chloroform inhalation. This and other poisons, such as creosote and prussic acid, given in large doses, produce instantaneous paralysis of the right side of the heart; the auricle goes on receiving blood and is unable to get rid of it, so that by distention the paralysis (which in some cases would be only momentary) is rendered permanent; the result is probably that instant or very rapid death to which the French apply the term *sideration*—death by star-influence. This subject of quick death from sudden distention of the right side of the heart, he had investigated experimentally many years ago, and he still held to the views he had then published. Touching Mr. Clover's apparatus, it was unquestionably a most admirable invention, but its cost and complexity must prove fatal to its introduction into general use. It will be a great source of safety when the administrator is a steady, watchful man, familiar with the system and the instrument. On the other hand, it is apparent at a glance that negligence or hardihood might readily cause an untrained or self-sufficient administrator to turn the valves too much, too little, or not at all. The induction of complete anæsthesia for surgical operations can never be divested of all danger; but (in theory at least) by Mr. Clover's method the danger may, it would appear, be reduced to its minimum. Slow administration, using the conically arranged towel, and letting plenty of air be breathed, generally secure immunity from danger; and, under all circumstances, such precautions and appliances can be commanded. When cost and complexity are not objections, and when Mr. Clover's apparatus and a person who knows well its use are at hand, it ought to be employed. The remark which was made by Mr. Baker was of great importance—viz., that a moderate stimulant, a dose of wine or brandy, given shortly before the commencement of inhalation, greatly tends to prevent the anæsthetic vapor from producing a too depressing influence on the heart.

THE ACTION OF ANÆSTHETICS ON THE RED CORPUSCLES OF THE BLOOD.

In connection with the papers above noticed, it may be well to draw attention to Professor Huter's views, as stated in an article on stasis and embolism of the blood-corpuscles, published in the *Deutsche Zeitschrift fur Chirurgie*, and of which a *precis* has appeared in the *British Medical Journal*.

Professor Huter first refers to the

changes which the red corpuscles of frog's blood, removed from the body, undergo, on the application of various physical and chemical agents, such as glycerine, ammonia, carbolic acid, chloroform, cold, and heat. These changes, which vary in degree, but are essentially the same in character, consist in notchings and angular irregularities of the corpuscles, often reaching as far as the centre; folding together of the membrane of the corpuscles like a paper envelope; rounded forms are also observed; and sometimes there is nothing left but a nuclear structure, consisting, like the white corpuscles, of fine granules, and distinguishable from the white corpuscles only by its small size and frequently by its oval form. When the above-mentioned agents are applied to the frog's mesentery, this becomes reddened, and microscopic examination shows that the redness depends on dilatation of the vessels combined with a complete stasis of the corpuscles. The idea that this appearance can be explained by the action of the re-agents on the walls of the vessels is contradicted by the rapid occurrence and equally rapid disappearance of the stasis; the phenomenon is rather to be explained by the purely mechanical action of the changes induced in the red corpuscles by means of the various agents, even when applied to the epidermis. Under the microscope the corpuscles can be observed to become indented; first one, and then another, remains hanging on to the walls of the vessel, until at last all the capillaries in the irritated region, and even the adjacent small arteries and veins, are filled with notched red corpuscles (globular stasis). Both during the existence of the stasis, and especially during its rapid breaking up, single altered corpuscles, or large masses of them, may pass into the circulation, and, adhering to the walls of the vessels in other organs, again produce a stasis (globular embolism). This embolism does not lead to the form of distinct embolic plugs, but to diffuse multiplication of stases of corpuscles through the whole circulatory system; for the masses of corpuscles which pass into the circulation readily break up on meeting with any obstacle. The occurrence of embolism from blood-corpuscles in parts where certainly no change in the vessels has occurred, gives a certain degree of support to the assertion that the cause of globular stasis is to be sought in the change of condition of the red corpuscles.

In a pathological point of view, Huter attributes great importance to the stasis of the corpuscles. He believes, in the first place, that irritants act essentially by producing stasis in the region to which they are applied; and that thus the inflammation induced by such means cannot be used in the explanation of the complicated phenomena of ordinary inflammations.

He maintains, further, that these researches are of great importance as regards pharmacology and toxicology. It is already known that many poisons, even those which do not act directly as blood-poisons, produce changes in the blood-corpuscles; and hence it may be supposed that they first produce changes in the form of the corpuscles, then globular stasis, and thus mechanically and indirectly lead to further changes. In experiments on frogs, it was very remarkable that all the agents which induced globular stasis also acted as anæsthetics; this is attributed by Huter to the formation of embola of red corpuscles in the brain. In this way he explains the action of anæsthetics, such as chloroform, ether, and alcohol, the anæsthetic power of which is in proportion to the amount of change of form which they are capable of producing in the red corpuscles. The corpuscles of chloroformed rabbits showed very irregular forms; a notched contour, frequently with one or two large club-shaped processes. After anæsthesia with ether, the corpuscles were mulberry-shaped. After alcohol, there were only slight indentations, and these could be observed in the stage following intoxication both in rabbits and in man. It fol-

lows from these observations that the administration of chloroform by inhalation is bad, as in this way the blood-corpuscles are altered while in the lungs, and globular stasis may be produced in these organs. Frogs can be brought into a state of anæsthesia by the action of chloroform-vapor on the skin of the thigh, while at the same time the part where the application is made assumes a redness which cannot be removed by pressure; and the blood-corpuscles removed from this part show the same changes (club-shaped processes, &c.) as in rabbits. This condition is present in the so-called chloroform-erythema which is often observed, especially in tender-skinned individuals. The beneficial action of lowering the head and raising the legs in cases of apparent death from chloroform, may be explained by the more easy breaking up of the globular stasis in this position, as the following experiment shows: The tongue and web of the foot of a chloroformed frog are spread out on a glass plate. If the animal be held for some time with the head upwards, extensive globular stasis will be observed in the vessels of the tongue, while the process is only beginning in the web; when the position is reversed, stasis sets in at once in the web of the foot and disappears from the tongue. Does the weight of the blood in the most dependent parts aid the slightly adherent corpuscles to pass through the vessels? In any case, it seems clear that chloroform is a very dangerous agent, in consequence of its strong action on the blood-corpuscles, and that therefore ether, the action of which is less powerful, is to be preferred as an anæsthetic.

If Huter's explanation of the cause of the anæsthetic action of the substances mentioned be correct, nearly everything which produces globular stasis must also be capable of producing anæsthesia by the formation of globular embolism in the brain; and thus it would seem that even warm baths, perhaps with the addition of easily diffusible agents, might be also used to produce anæsthesia. A frog was immersed for twenty minutes in a five per cent. solution of common salt at the temperature of the room, and was anæsthetized, with the production of globular stasis over the whole skin.

The application of carbolic acid is proper only in the first stages of the treatment of wounds. After the formation of granulations has taken place, it produces permanent stasis of the corpuscles in their vessels, and thus hinders the growth of the granulations as well as the formation of epidermis.

ACUTE RHEUMATISM; PERICARDITIS; SUDDEN AND RAPID EFFUSION INTO PERICARDIUM; PARACENTESIS PERICARDII; RECOVERY.

From London Lancet, November, 1874.

W. L——, aged twenty-five, married; a plasterer. Has had four attacks of "rheumatic fever" during the last three years, but does not know that his heart was affected in any way. Has not complained of shortness of breath, and has had no difficulty in getting about. Has been ailing for the last nine months, but did not lie up till three weeks ago, when pain in the hips came on, and he has been obliged to remain in bed since.

Admitted March 13th, 1874. Complains of feeling sore all over. He is unable to move without pain, but no articular swelling is visible. Perspires freely. Has a depressed expression, and lies on his back. Temperature 102-6°; pulse 108; respira-

tion 32. Complains of pain in the cardiac region on drawing a deep breath. A friction sound is audible over the base of the heart, and a prolonged blowing sound at the apex. There is no increase of cardiac dullness. The urine has a specific gravity of 1025; it is slightly acid, but free from albumen. Ordered six leeches to be applied to the cardiac region, and to take an alkaline mixture every four hours.

14th.—Friction sound at the base less distinct. Temperature 101-2°F.; pulse 92; respiration 28. There is slight effusion into both knee-joints, and tenderness about the ankles. The precordial pain relieved.

23d.—The friction sound still audible. Ordered some blistering fluid to be applied over the base of the heart.

24th.—A loud double friction sound audible over the whole cardiac area, but no increase of cardiac dullness.

25th.—Was taken suddenly in the night with acute precordial pain and dyspnœa. At midday the pain was unrelieved, and dyspnœa considerable. Pulse small and weak, 130; respiration 44; temperature 100° F. Cardiac dullness extends to the second interspace; no cardiac impulse to be felt; heart's sounds scarcely audible; no friction sound. Lips, fingers, and toes looking blue; no impairment of consciousness, but dyspnœa very urgent. Paracentesis pericardii was considered necessary, as nothing short of the removal of the fluid from the pericardium seemed likely to restore the rapidly weakening power of the heart. Accordingly Mr. Charles Steele was called in consultation, and immediately proceeded to perform the operation. One of the larger sized tubes of Dieulafoy's aspirator was plunged through the skin and chest-wall at a spot between the fourth and fifth ribs and half way between the middle line and the nipples on the left side. Several ounces of perfectly clear serous fluid were then drawn off by suction, but the fluid gradually became more and more colored till it appeared to be mere blood. After ten ounces of fluid had been withdrawn, the tube was removed, and the aperture closed with strapping. The area of cardiac dullness had considerably diminished and the dyspnœa was much relieved for a few minutes, but the dullness increased again in about ten minutes, though not to the same extent as before the operation, and he still had considerable difficulty in breathing, but the pulse was stronger than before. It was presumed that some hæmorrhage into the pericardium had taken place, as the last few ounces of fluid looked like undiluted blood, and the whole quantity of fluid became a coherent mass of coagulum after standing. In the evening he breathed more easily. The pulse was 124, fuller than before the operation; respiration 44; temperature 103° F.

26th.—Pulse 124; respiration 36; temperature 101°, morning.

28th.—Pulse 116; respiration 32; temperature 100. The left wrist was painful and swollen; he perspired very copiously; pericardial dullness less; respiration easy.

On April 2d he was free from pain and slept well. On the 7th he was not so well. Pulse 112; temperature 99-6°. Did not complain of pain; could draw a deep breath without difficulty; cardiac dullness normal; a slight systolic friction sound audible at the base of the heart.

On May 19th he was discharged, the heart's sounds being normal, the area of cardiac dullness not enlarged. He was still weak, and the pulse was rather small, soft and quick.

On July 6th he was doing his regular work without much difficulty.

IODIDE OF POTASSIUM IN ACUTE AND CHRONIC BRONCHITIS AND ASTHMA (*The British Medical Journal*, September 5, 1874).—Mr. W. H. Spurgiss has used iodide of potassium in over one hundred cases of the above diseases, and with invariable success, now rarely giving anything else.

GALVANO-PUNCTURE AT THE WESTMINSTER HOSPITAL.—On Tuesday last (July 14th) the operation of galvano-puncture was performed on a man aged thirty-eight, under the care of Dr. Anstie, for an abdominal aneurism supposed to be connected with the cæliac axis. The patient first noticed a pulsating swelling in the left hypochondriac region ten weeks ago. A fortnight afterward he applied at the hospital and was admitted, and was kept at rest in bed. The aneurism was at first treated according to the plan recommended by Langenbeck, by the subcutaneous injection of ergotin. Bonjean's ergotin was injected seven times, at intervals of about two days. Altogether, thirty grains were used, but without any definite effects except on the first occasion. Galvano-puncture was therefore determined on. Accordingly, on Tuesday last, two needles, insulated with vulcanite up to three-quarters of an inch of the points, were introduced into the aneurism at the most prominent part, and were then connected with the positive pole of the battery, which consisted at first of twelve Bunsen's cells, subsequently reduced to eight. The current was kept up for thirty minutes, during which time the patient suffered acute pain. Both needles were then cut short and left in the aneurism for twenty-three hours, when they were removed on account of the redness and discoloration of the skin. The day after the operation the aneurism was firmer, and the pulsation appreciably diminished, the patient being quiet and composed. A subcutaneous injection of a third of a grain of morphia was given on the night of the operation, and another injection on the next morning. The patient continues in a very satisfactory state, and when the case is more advanced we shall give in detail the ultimate results. —*London Lancet.*

NEW RESEARCHES ON DIABETES.—We learn that Dr. Pavy has obtained some experimental results which are likely to throw a new light on the subject of diabetes. He has found that the injection of defibrinated arterial blood into the portal system occasions a saccharine state of the urine. In one experiment, the urine after the operation contained fifteen grains of sugar to the fluid ounce, and in others the quantity has amounted to nearly the same. In the counterpart experiment of injecting defibrinated venous blood into the portal system, the urine showed no signs of the presence of sugar. It thus appears that oxygenated blood passing to the liver causes an escape of sugar from the organ, and thence an accumulation in the system and discharge with the urine. It also appears that through the medium of the respiration of oxygen he has succeeded in inducing a sufficiently oxgenated state of the blood to similarly give rise to the production of saccharine urine. He has further found that through the agency of the inhalation of puff-ball smoke an immediate and strongly diabetic state may be induced, and that the effect is accompanied with such a modification of the circulation that the blood flows through the vessels, as is the case after section of the sympathetic, without becoming de-arterialized. His experiments, he considers, suggest that in diabetes of the human subject, the blood, in consequence of vaso-muscular paralysis, is allowed to reach the portal vein in an imperfectly de-arterialized condition, and thus determines the escape of sugar from the liver. We understand his results are to be brought forward at the Royal Society as soon as its meetings commence.—*Ibid.*

LOCAL ACTION OF IPECACUANHA (*The Practitioner*, September, 1874).—Dr. De Mussey records a case of purulent ophthalmia in a new-born infant, in which, after all other remedies had failed, he succeeded in producing a cure by the use of the following decoction:

℞	Ipecac root,	ʒ ss
	Water,	℥ v.

Boil for ten minutes, and, when cool, strain off.

Book Reviews.

CYCLOPEDIA OF THE PRACTICE OF MEDICINE. Edited by H. Von Ziemssen, Prof. of Clinical Medicine, Munich, Bavaria. Vol. 1, Acute Infectious Diseases, by Prof. Liebermeister, of Tubingen, Prof. Liebert, of Breslau, Dr. Haenisch, of Greifswald, Prof. Heubner, of Leipzig, and Dr. Oertel, of Munich. Albert H. Buck, Editor of American Edition. New York: Wm. Wood & Co. Sold only by Subscription. W. T. Keener, Agent, 94 Washington Street, Chicago.

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TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA. Twenty-fifth Annual Session, held at Easton, Pa., May, 1874. Pp. 450.

TRANSACTIONS OF THE NEW HAMPSHIRE STATE MEDICAL SOCIETY. Eighty-fourth Anniversary, held at Concord, June 9th, 1874.

THE LEGAL RELATIONS OF EMOTIONAL INSANITY. By L. Howard, M.D., of Baltimore, Md. Extracted from the transactions of the American Medical Association.

TREATMENT OF ZONA BY COLLODION AND MORPHIA.—Dr. Bourdon, Hopital la Charite, after having tried a great many local means for treating the above disease, and checking the intense pain, has definitively adopted the following plan:—Without opening the vesicles, he paints all the diseased surface with a combination of collodion and morphia—collodion one ounce, morphia eight grains. The mixture must be put on pretty thickly. The pain ceases from the second day, and at the end of seven or eight days, when the layer of collodion is removed, all the vesicles have disappeared, and there remains only a slight local redness.—*Canada Lancet.*

PETRIFACTION VERSUS CREMATION.—Dr. Steinbeis, of Wurtemburg, proposes to dispose of the dead by placing the body in a trough of cement, and then filling the space with liquid cement, which will harden and convert the whole into a solid mass of stone. The blocks thus obtained may be piled up, buried, or inscribed and set up to do duty as both tombs and tomb-stones. This method, if generally adopted, possesses some advantages for posterity, as future generations would probably use the obsolete blocks for building material.—*New York Medical Journal.*

DR. HAMBERG, of Stockholm, has lately been engaged in making a series of experiments on the poisons exhaled by certain wall papers. As with ourselves, arsenic is the poison most to be dreaded.—*London Lancet.*

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